

## Work Order ID 71331

Tuesday, June 28, 2011 10:15:30 AM



Page 1

Item ID: D3391-025

Accept



Setup Start



Revision ID:

Item Name: Aft Tube Assembly

Stop



Start Date: 6/28/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/27/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: MF

Date: 11-06-28

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D3391    | Rev H/ DEO   |

100



MORI SEIKI CNC LATHE LARGE

Mori Seiki

Mori Seiki CNC Lathe Large

Memo

0.00

Turn as per Folio FA599 Rev: H & Dwg D3391 Rev: A9

\*\*\*scribe batch # on fwd end at 90 degree\*\*\*

MF 11/06/28

110



QC2- Inspect parts off machine FAI/FAIB

0.00

QC

Quality Control

Memo

0.00

OK/10/30

OK

111



QC8- Inspect parts - second check

0.00

QC

Quality Control

Memo

0.00

OK 11/05/04

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries



| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
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|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
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|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

**Work Order ID 71331**

Page 3

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Item ID: D3391-025

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Item Name: Aft Tube Assembly

Stop



Start Date: 6/28/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/27/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150



Skidtubes

0.00

Skidtubes

\* Memo

0.00

1-Drill ( PILOT HOLE) aft cap holes per Dwg D3391 using DT8803

160



BENDING MACHINE - SKIDTUBES

0.00

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Form as per Dwg D3391 Using Bend Prog 3391025

170



QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

H-4.15"

11-7-5

Quality Control

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

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|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

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**Work Order ID 71331**

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Page 4

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Item Name: Aft Tube Assembly

Start Date: 6/28/2011 Start Qty: 1.00

Required Date: 7/27/2011 Req'd Qty: 1.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

180

Operation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Skidtubes

Skidtubes

0.00

Memo

0.00

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only)

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217  
Wearplate Jig

\*\*\*\*\*Do Not Open To Finished Size\*\*\*\*\*

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2  
previously drilled aft wearplate holes.

5-Open wearplate holes to 0.250" and cbore as per dwg D3391

6-Open up all wearshoe , wearplate to 0.297"and float bag holes to 0.328" as per  
Dwg D3391.

7-Deburr

BB 11/07/06

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
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|      |      |                    |    |      |     |                                     |                          |

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|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

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Page 5

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190



QC

QC5- Inspect part completeness to step on W/O

0.00

8 u107/06

Quality Control

200



HandFinish

Chemical Conversion Coat per QSI005 4.1

0.00

0.00

Hand Finishing

Memo

210



QC

QC3- Inspect Part Finish

0.00

0.00

Quality Control

Memo

W/O:

## WORK ORDER CHANGES

| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|------|------|------------------|----|------|-----|-------------------------------------|--------------------------|
|      |      |                  |    |      |     |                                     |                          |
|      |      |                  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date &amp; initial all entries

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Page 6

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

220

Operation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Skidtubes

0.00

Skidtubes

Skidtubes

Memo

0.00

Instal spacers as per dwg D3391  
A/R Magnabond 6398 Batch: 116627  
exp. date: 11/08  
cure time 12hrs as per QSI0015

*SL*  
*11/07/15*

230



QC5- Inspect part completeness to step on W/O

0.00

Quality Control

Memo

0.00

*S. Morris*

*(-6)*

235



Pressure Wash per QSI005 4.3

0.00

HandFinish

Memo

0.00

Hand Finishing

AND REALODINE AS PER PAR09-043

*1xcm* *11/04/15*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

**Work Order ID 71331**

Tuesday, June 28, 2011 10:15:30 AM



Page 7

Item ID: D3391-025

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Setup Start



Revision ID:

Item Name: Aft Tube Assembly

Stop



Start Date: 6/28/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 7/27/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

240



Powdercoat

Operation  
Description

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

M 11 8439

Memo

1:00 0.00  
START TIME: 320 °F  
OVEN TEMPERATURE: FINISH TIME: 1:30

X 0 m-11/09/15

250



QC

Quality Control

QC3- Inspect Part Finish

0.00

1 d M 11/09/19

260



HandFinish

HandFinishing

0.00

1 d M 11/09/19

Hand Finishing

Memo

0.00

- 1-Install inserts as per Dwg D3391
- 2-Install Aft Cap as per Dwg D3391

A/R Sikaflex-241/-291 110393  
Sikaflex expiry date: 17/02

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
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|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

**Work Order ID 71331**

Page 8

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Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

270

QC5- Inspect part completeness to step on W/O

0.00

S. Mala



QC

Memo

0.00

280

Identify as per dwg & Stock Location: WLO

0.00

10412-742-043/ B71312



Packaging

Memo

0.00

1 of 100 (15)

290

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

M/9/1998

MF 11-09-19

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

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|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

# Picklist Print

Tuesday, June 28, 2011 10:15:27 AM

Page 1

Work Order ID: 71331



Parent Item: D3391-025



Parent Item Name: Aft Tube Assembly

Start Date: 6/28/2011

Required Date: 7/27/2011

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev B 06-02-07 ECN773 dwg rev. D EC  
 IPP Rev:C 06-03-28 Update Manuf. Instructions JLM     
 IPP rev D 07.03.20 revF dwg EC  
 IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD  
 IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC  
 IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

|           |  |              |    |  |     |      |        |   |   |   |   |            |            |
|-----------|--|--------------|----|--|-----|------|--------|---|---|---|---|------------|------------|
| D6014-090 |  | Manufactured | No |  | 100 | Each | 0.0000 | 1 | 1 | 1 | 1 | 11/06/2011 | 11/06/2011 |
|-----------|--|--------------|----|--|-----|------|--------|---|---|---|---|------------|------------|

ALUMINUM EXTRUSION

D3670-4-200

SPACER

|       |  |              |    |                                |                            |                 |  |  |   |   |            |            |
|-------|--|--------------|----|--------------------------------|----------------------------|-----------------|--|--|---|---|------------|------------|
| D2646 |  | Manufactured | No | <u>Location</u><br>LG<br>70822 | <u>Loc Qty</u><br>38<br>38 | <u>Loc Code</u> |  |  | 1 | 1 | 11/07/2011 | 11/07/2011 |
|-------|--|--------------|----|--------------------------------|----------------------------|-----------------|--|--|---|---|------------|------------|

Aft Cap

|         |  |              |    |   |  |                 |  |  |   |   |            |            |
|---------|--|--------------|----|---|--|-----------------|--|--|---|---|------------|------------|
| D3537-1 |  | Manufactured | No | <u>Location</u><br>FP004<br>68280<br>FP006<br>62678 | <u>Loc Qty</u><br>60<br>60<br>14<br>14 | <u>Loc Code</u> |  |  | 1 | 1 | 11/09/2011 | 11/09/2011 |
|---------|--|--------------|----|---|--|-----------------|--|--|---|---|------------|------------|

Wearpad

|  |  |  |  |  |                                 |                 |  |  |  |  |  |
|--|--|--|--|--|---------------------------------|-----------------|--|--|--|--|--|
|  |  |  |  | <u>Location</u><br>FP017<br>69278<br>69817 | <u>Loc Qty</u><br>41<br>34<br>7 | <u>Loc Code</u> |  |  |  |  |  |
|--|--|--|--|--|---------------------------------|-----------------|--|--|--|--|--|

870687

X1

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

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| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

# Picklist Print

Page 2

Tuesday, June 28, 2011 10:15:27 AM

Work Order ID: 71331



Parent Item: D3391-025



Parent Item Name: Aft Tube Assembly

Start Date: 6/28/2011

Required Date: 7/27/2011

Start Qty: 1.00

Required Qty: 1.00

D3537-7



Manufactured

No

270

Each

4.0000

1

1

sel u/09/19

Wearpad

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| FP019           | 4              | 371689          |
| 69320           | 4              |                 |

D3553-1



Manufactured

No

270

Each

8.0000

1

1

sel u/09/19

Gasket

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| FP013           | 8              | 373155          |
| 56568           | 8              |                 |

D3553-3



Manufactured

No

270

Each

32.0000

1

1

sel u/09/19

Gasket

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| FP              | 20             |                 |
| 31631           | 20             |                 |
| FP013           | 12             |                 |
| 53480           | 12             |                 |

D3672-1



Manufactured

No

270

Each

1,122.000

2

2

sel u/09/19

Phenolic Washer

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| ST074           | 1096           |                 |
| 64177           | 596            |                 |
| 66821           | 500            |                 |
| ST077           | 26             |                 |
| 52505           | 26             |                 |

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

# Picklist Print

Page 3

Tuesday, June 28, 2011 10:15:27 AM

Work Order ID: 71331



Parent Item: D3391-025



Parent Item Name: Aft Tube Assembly

Start Date: 6/28/2011

Required Date: 7/27/2011

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130



Purchased

No

260

Each

1,122.000

14

14



Insert



Location

Loc Qty

Loc Code

ST281

8

M1118301

x14

117331

8

AWS7-1032-130

ST282

1114

117717

1114

ALS4-1032-225



Purchased

No

270

Each

666.0000

12

12



Insert



Location

Loc Qty

Loc Code

ST282

666

110768

213

117717

453

M111529

x12

AN3C4A



Purchased

No

270

Each

2,162.000

6

6



BOLT

Location

Loc Qty

Loc Code

ST350

2162

117313

2

117688

776

117795

500

117872

22

118012

500

118112

362

M1118628

x6

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

# Picklist Print

Tuesday, June 28, 2011 10:15:27 AM

Page 4

Work Order ID: 71331



Parent Item: D3391-025



Parent Item Name: Aft Tube Assembly

Start Date: 6/28/2011

Required Date: 7/27/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C5A



Purchased

No

270

Each

1,385.000

4

4



u 109119

Bolt

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| FP-A            | 7              |                 |
| 115835          | 7              |                 |
| ST350           | 1378           |                 |
| 116419          | 28             |                 |
| 116549          | 54             |                 |
| 117343          | 500            | X ✓             |
| 117764          | 300            |                 |
| 117872          | 496            |                 |

AN960C10L

NAS1149C0332

Purchased

No

270

Each

0.0000

10

10

u 118354



(x10) u 109119

washer

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

|                    |                      |              |         |
|--------------------|----------------------|--------------|---------|
| DART AEROSPACE LTD |                      | Work Order:  | 71331   |
| Description:       | Float Skidtube (412) | Part Number: | D3391-3 |
| Inspection Dwg:    | D3391                | Rev:         | H       |

Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

| Drawing Dimension  | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|--------------------|-----------|------------------|--------|--------|----------------------|----------|
| Lathe Section      |           |                  |        |        |                      |          |
| 14.000             | +/-0.010  | 14.000           | ✓      |        | tape                 | MM.L-02  |
| 3.500              | +/-0.010  | 3.500            | ✓      |        | vern                 | JF-01    |
| 88.93              | +/-0.030  | 88.93            | ✓      |        | tape                 | MM.L-02  |
| Ø3.200             | +/-0.010  | 3.200            | ✓      |        | micr                 | CNC-09   |
| 88.93              | +/-0.030  | 88.93            | ✓      |        | tape                 | MM.L-02  |
| Ø3.750             | +/-0.010  | 3.750            | ✓      |        | vern                 | JF-01    |
| 30° x 160" chamfer | +/-0.010  | 30° x 160"       | ✓      |        | vern                 | JF-01    |

Measured by: MML

Date: 11/06/04

Audited by: SL

Date:

| HAAS Section |               |        |   |  |        |         |
|--------------|---------------|--------|---|--|--------|---------|
| 1.526        | +0.000/-0.030 | 1.570  | — |  | vern   | ML-7    |
| 7.500        | +/-0.010      | 7.500  | — |  | vern   | ACNC-02 |
| 27.750       | +/-0.010      | 27.750 | — |  | M-tape | ML-2    |
| 31.750       | +/-0.010      | 31.750 | — |  | "      | "       |
| 35.250       | +/-0.010      | 35.250 | ✓ |  | "      | "       |
| 3.300        | +/-0.010      | 3.295  | — |  | vern   | ML-7    |
| 0.200        | +/-0.010      | .200   | — |  | "      | "       |
| 3.520        | +/-0.010      | 3.520  | — |  | vern   | ACNC-02 |
| 0.687        | +0.010/-0.000 | 687    | — |  | "      | ML-7    |
| R0.062       | +/-0.010      | R.062  | — |  | R-C    |         |
| Ø0.484       | +0.005/-0.001 | Ø.487  | — |  | vern   | ML-7    |

Measured by: ML

Date: 11/07/04

Audited by: SL

Date: 11/07/04

| Rev | Date     | Change                                     | Revised by         | Approved |
|-----|----------|--|--------------------|----------|
| A   | 06.04.24 | New Issue                                  | P/O D3391-015/-025 | KJ/JLM   |
| B   | 06.06.19 | Dwg revision update                        | KJ/JLM             |          |
| C   | 07.04.20 | Ø0.208 dimension removed                   | KJ/JLM             |          |
| D   | 07.09.06 | 0.400 dimension removed                    | KJ/JLM             |          |
| E   | 07.11.23 | Dwg Rev. updated                           | KJ/EC/DD           |          |
| F   | 09.04.27 | Dimensions updated per Rev H and NCR09-028 | KJ/JLM             |          |
| G   | 09.11.16 | Dimension 0.200 removed                    | KJ                 |          |
| H   | 11.06.21 | Dimension 44.995 removed                   | KJ                 |          |

W/O:

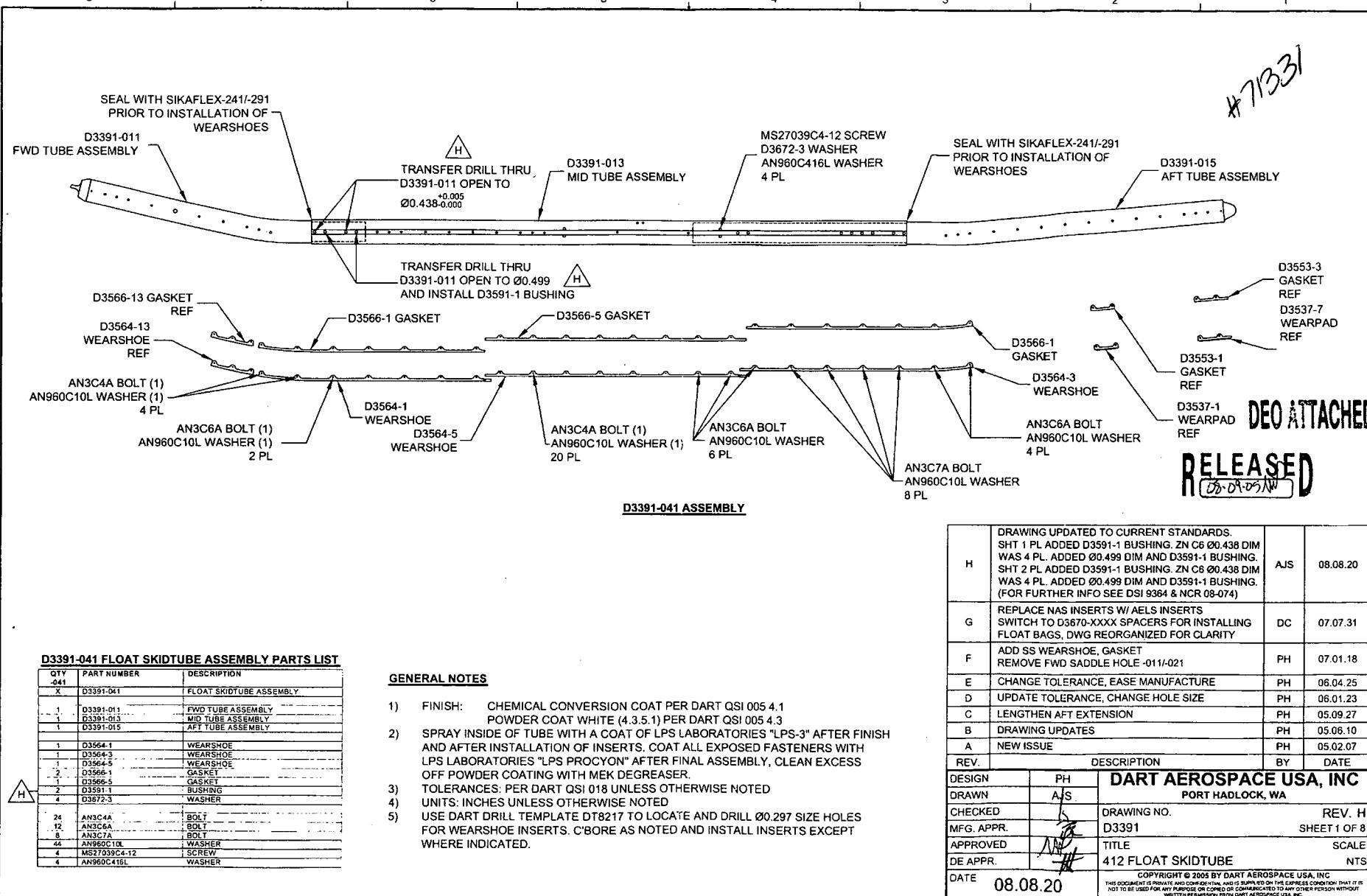
## WORK ORDER CHANGES

| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|------|------|------------------|----|------|-----|-------------------------------------|--------------------------|
|      |      |                  |    |      |     |                                     |                          |
|      |      |                  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date &amp; initial all entries



X71331

D3553-3  
GASKET  
REF  
D3537-7  
WEARPAD  
REF

1 PAD DEO ATTACHED  
LEASED  
3-09-05 NW

D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

| QTY | PART NUMBER | DESCRIPTION             |
|-----|-------------|-------------------------|
| 1   | D3391-041   | FLOAT SKIDTUBE ASSEMBLY |
| 1   | D3391-011   | FWD TUBE ASSEMBLY       |
| 1   | D3391-013   | MID TUBE ASSEMBLY       |
| 1   | D3391-015   | AFR TUBE ASSEMBLY       |
| 1   | D3564-1     | WEARSHOE                |
| 1   | D3564-3     | WEARSHOE                |
| 1   | D3564-5     | WEARSHOE                |
| 2   | D3566-1     | GASKET                  |
| 1   | D3566-5     | GASKET                  |
| 2   | D3591-1     | BUSHING                 |
| 4   | D3872-3     | WASHER                  |
| 24  | AN3C4A      | BOLT                    |
| 12  | AN3C4B      | BOLT                    |
| 1   | AN3C4A      | WELL                    |
| 44  | AN960C10L   | WASHER                  |
| 4   | MS7039C4-12 | SCREW                   |
| 4   | AN960C415L  | WASHER                  |

## GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL  $\varnothing 0.297$  SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.

|            |   |   |              |     |          |
|------------|---|---|--------------|-----|----------|
| H          | DRAWING UPDATED TO CURRENT STANDARDS.<br>SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM<br>WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING.<br>SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM<br>WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING.<br>(FOR FURTHER INFO SEE DSI 9364 & NCR 08-074) |   |              | AJS | 08.08.20 |
| G          | REPLACE NAS INSERTS W/ AELS INSERTS<br>SWITCH TO D3670-XXXX SPACERS FOR INSTALLING<br>FLOAT BAGS, DWG REORGANIZED FOR CLARITY   |   |              | DC  | 07.07.31 |
| F          | ADD SS WEAHROE, GASKET<br>REMOVE FWD SADDLE HOLE -011-021   |   |              | PH  | 07.01.18 |
| E          | CHANGE TOLERANCE, EASE MANUFACTURE  |   |              | PH  | 06.04.25 |
| D          | UPDATE TOLERANCE, CHANGE HOLE SIZE  |   |              | PH  | 06.01.23 |
| C          | LENGTHEN AFT EXTENSION  |   |              | PH  | 05.09.27 |
| B          | DRAWING UPDATES   |   |              | PH  | 05.06.10 |
| A          | NEW ISSUE   |   |              | PH  | 05.02.07 |
| REV.       | DESCRIPTION   |   |              | BY  | DATE     |
| DESIGN     | PH  | <b>DART AEROSPACE USA, INC</b><br>PORT HADLOCK, WA  |              |     |          |
| DRAWN      | AJS   |   |              |     |          |
| CHECKED    |   | DRAWING NO.   | REV. H       |     |          |
| MFG. APPR. |   | D3391   | SHEET 1 OF 8 |     |          |
| APPROVED   |   | TITLE   | SCALE        |     |          |
| DE APPR.   |   | 412 FLOAT SKIDTUBE  | NTS          |     |          |
| DATE       | 08.08.20  | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED FOR YOUR USE ONLY. IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>THE EXPRESS WRITTEN CONSENT OF DART AEROSPACE USA, INC. |              |     |          |

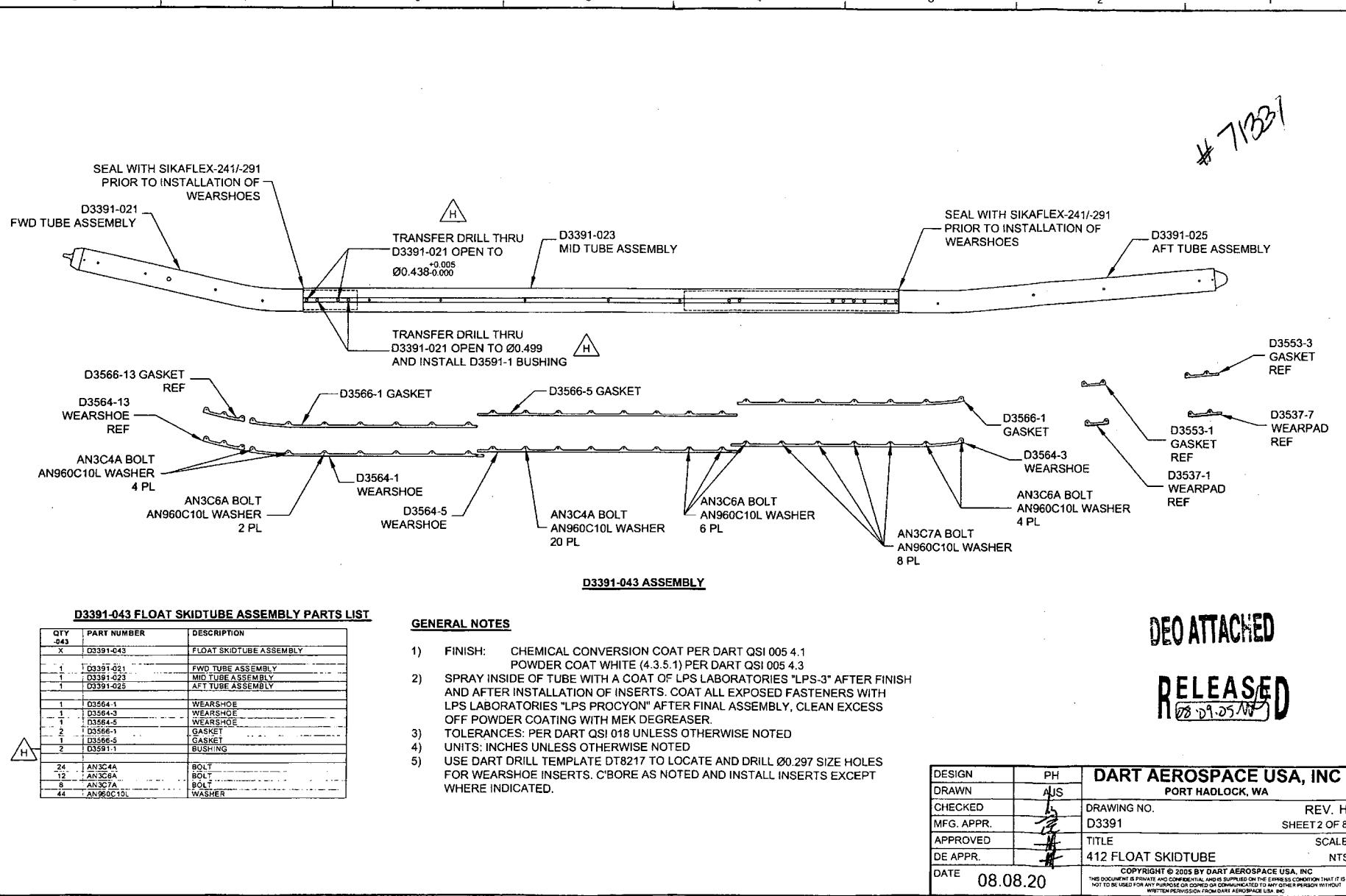
| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries



| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

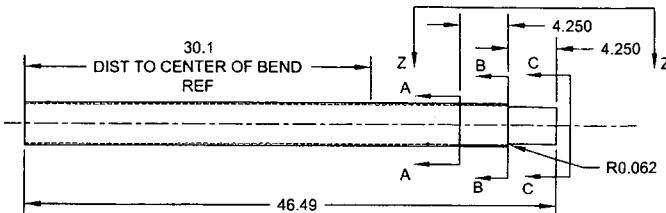
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

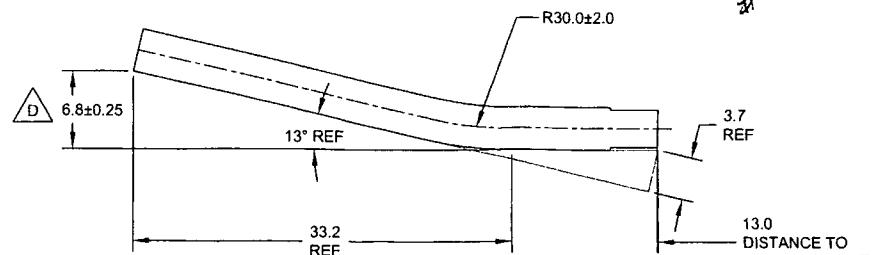
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D



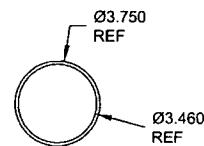
**D3391-1 CUTTING DETAIL**  
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)

C

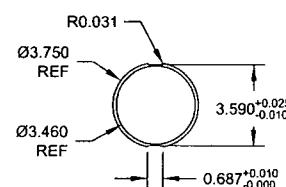


**D3391-011/-021 BENDING DETAIL**  
(MAKE FROM D3391-1)

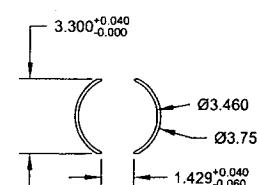
B



**SECTION A-A**  
SCALE 2X

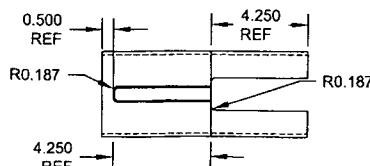


**SECTION B-B**  
SCALE 2X



**SECTION C-C**  
SCALE 2X

A



**VIEW Z-Z**  
SCALE 2X

**DEO ATTACHED**  
**RELEASED**  
*04-05-05*

| DESIGN     | PH        | DART AEROSPACE USA, INC  |
|------------|-----------|--------------------------|
| DRAWN      | AUS       | PORT HADLOCK, WA         |
| CHECKED    | <i>SC</i> | DRAWING NO.              |
| MFG. APPR. | <i>SC</i> | REV. H                   |
| APPROVED   | <i>AM</i> | DATE 03391               |
| DE APPR.   | <i>AM</i> | TITLE 412 FLOAT SKIDTUBE |
| DATE       | 08.08.20  | SCALE NTS                |

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D

C

B

A

8 7 6 5 4 3 2 1

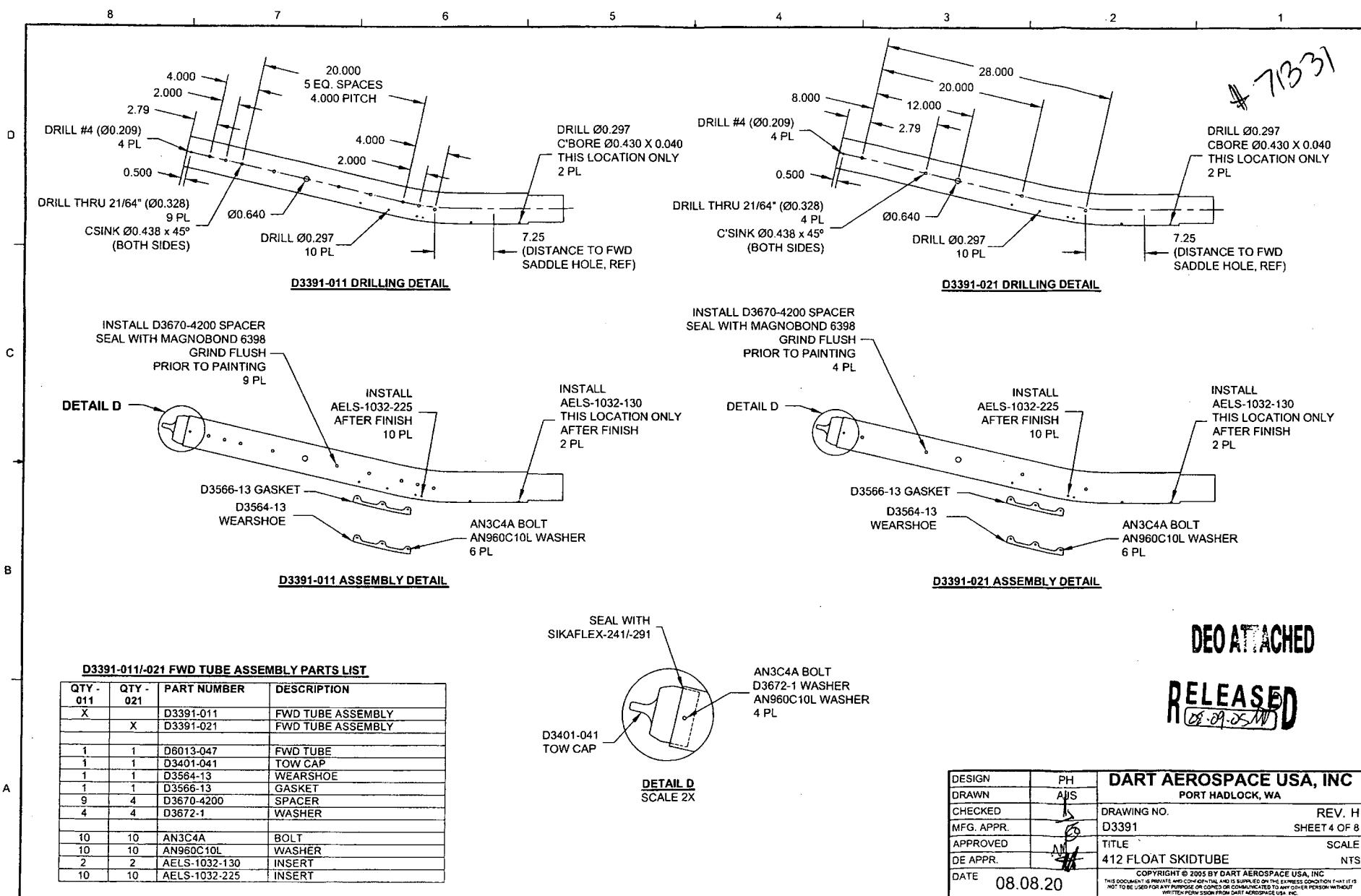
| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

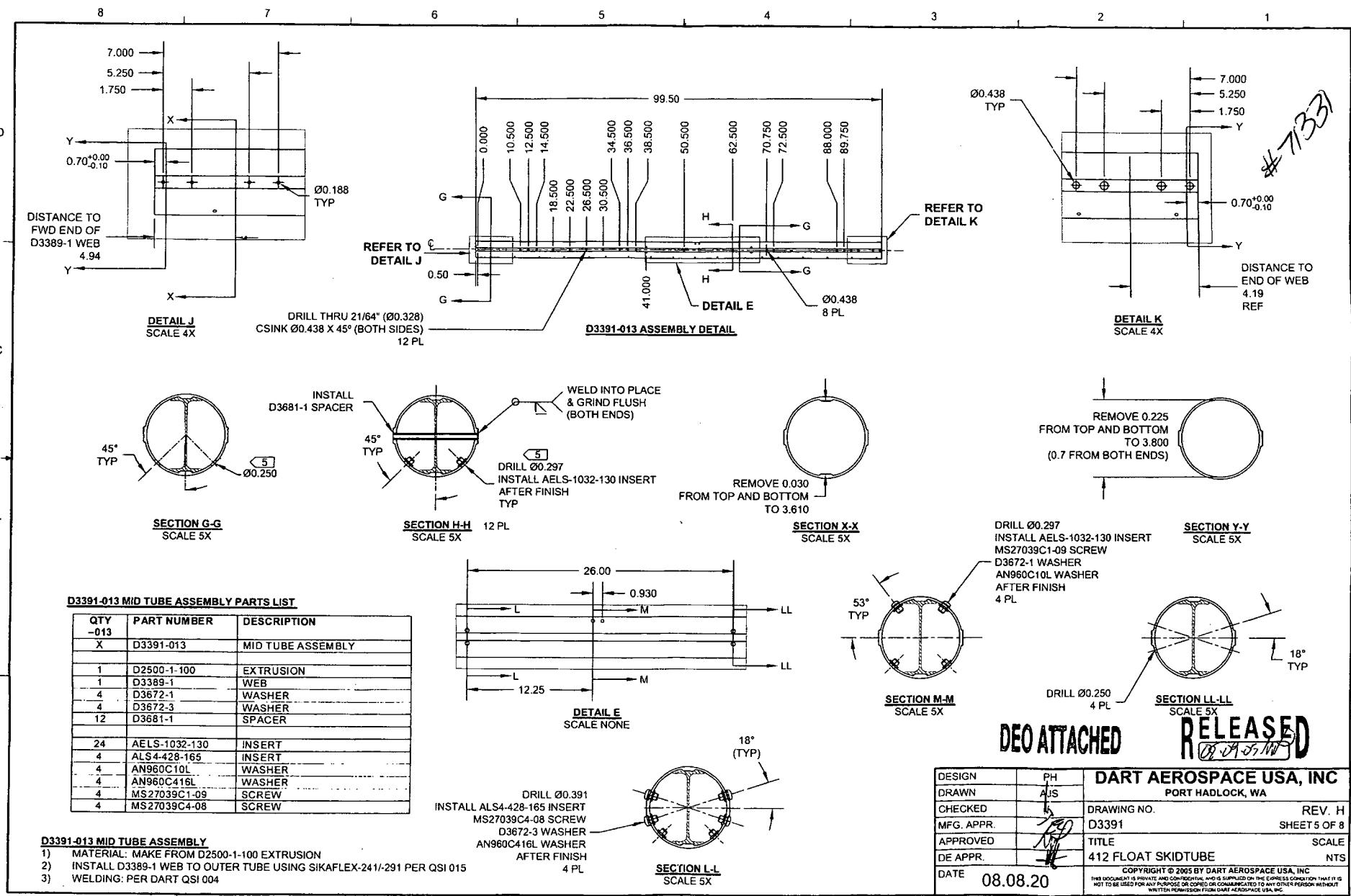


| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries



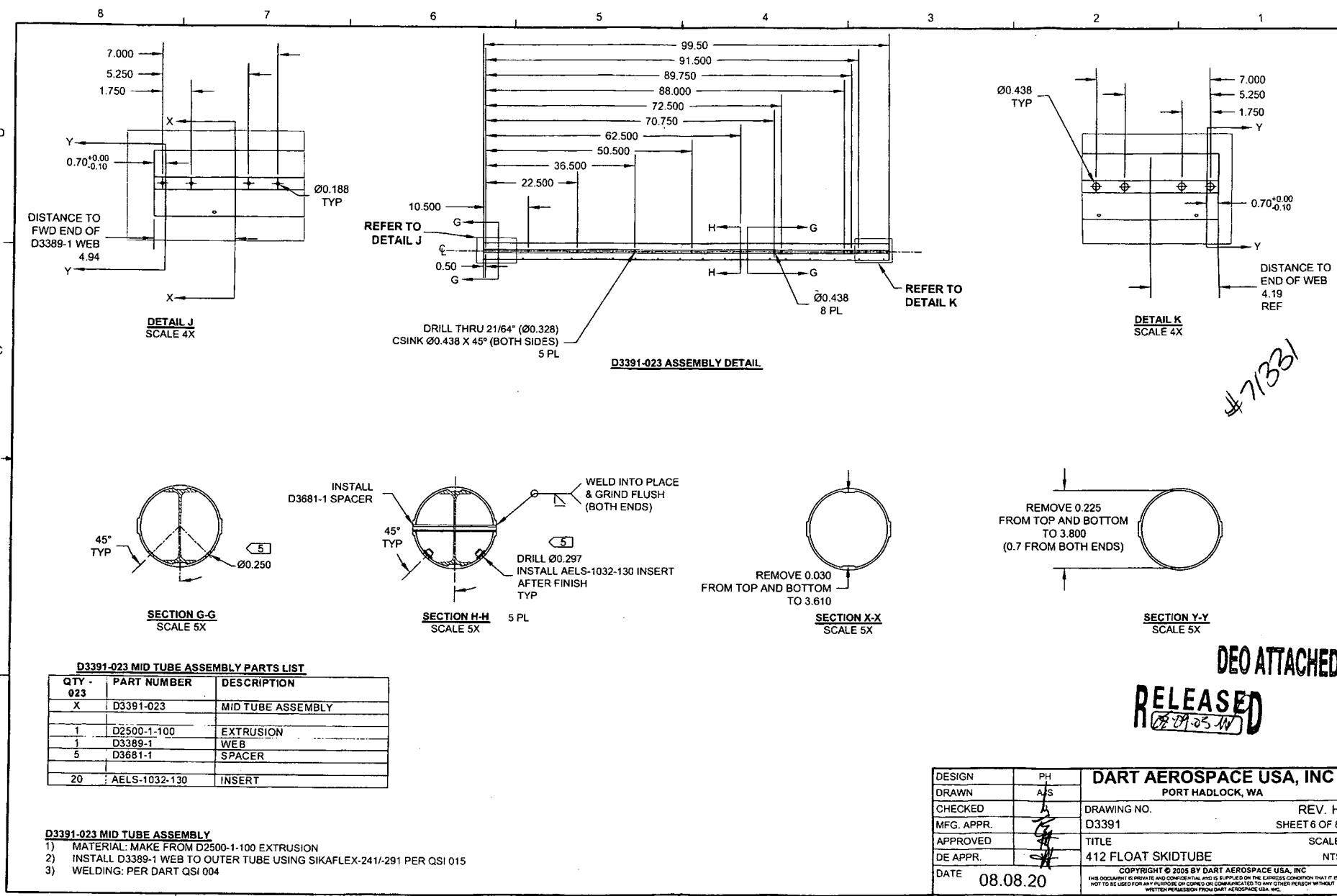
| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries



| DESIGN     | PH       | DART AEROSPACE USA, INC |
|------------|----------|-------------------------|
| DRAWN      | AS       | PORT HADLOCK, WA        |
| CHECKED    | A        | DRAWING NO.             |
| MFG. APPR. |          | REV. H                  |
| APPROVED   |          | D3391                   |
| DE APPR.   |          | SHEET 6 OF 8            |
| DATE       | 08.08.20 | SCALE                   |
|            |          | NTS                     |

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7/13/05

DET ATTACHED

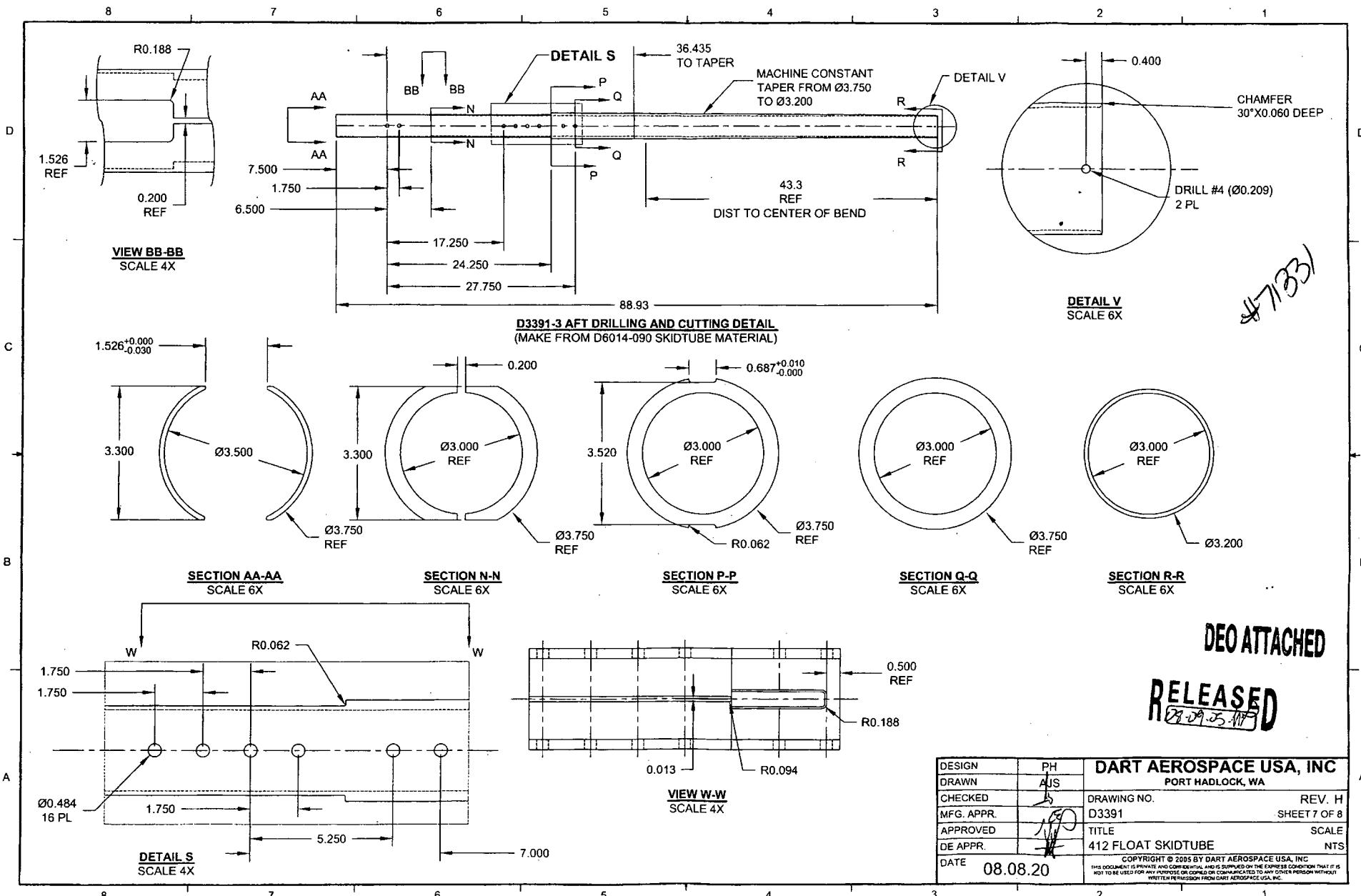
RELEASED  
08.08.20

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

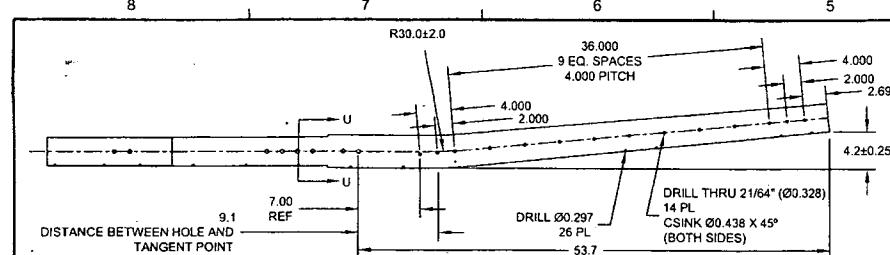


| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

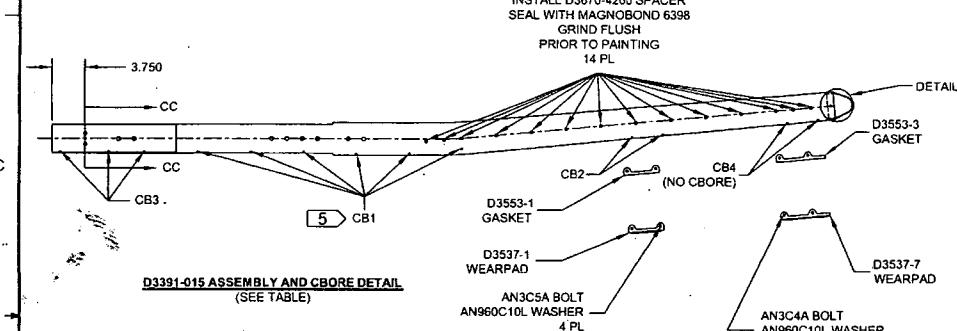
| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries



**D3391-015 BENDING AND DRILLING DETAIL**  
(SEE CBORE DETAIL BELOW)

INSTALL D3670-4200 SPACER  
SEAL WITH MAGNOBOND 6398  
GRIND FLUSH  
PRIOR TO PAINTING  
14 PL

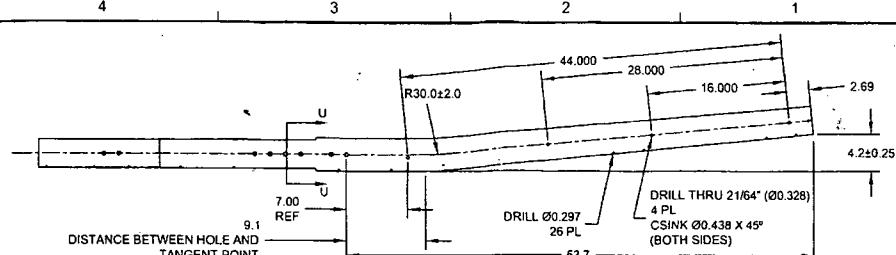


**D3391-015 ASSEMBLY AND CBORE DETAIL**  
(SEE TABLE)

| QTY | QTY | PART NUMBER   | DESCRIPTION       |
|-----|-----|---------------|-------------------|
| 015 | 025 | D3391-015     | AFT TUBE ASSEMBLY |
| X   | X   | D3391-025     | AFT TUBE ASSEMBLY |
| 1   | 1   | D6014-090     | AFT TUBE          |
| 1   | 1   | D2646         | AFT CAP           |
| 1   | 1   | D3537-1       | WEARPAD           |
| 1   | 1   | D3537-7       | WEARPAD           |
| 1   | 1   | D3553-1       | GASKET            |
| 1   | 1   | D3553-3       | GASKET            |
| 14  | 4   | D3670-4200    | SPACER            |
| 2   | 2   | D3672-1       | WASHER            |
| 14  | 14  | AELS-1032-130 | INSERT            |
| 12  | 12  | AELS-1032-225 | INSERT            |
| 4   | 4   | ALS4-428-165  | INSERT            |
| 6   | 6   | AN3C4A        | BOLT              |
| 4   | 4   | AN3C5A        | BOLT              |
| 10  | 10  | AN960C10L     | WASHER            |

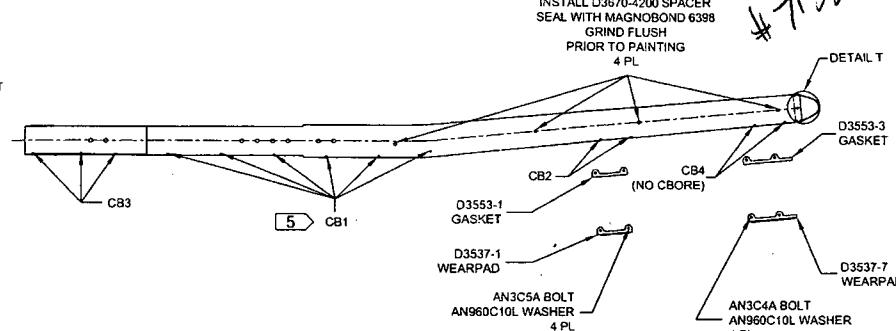
CBORE HOLES MARKED CB1-CB4 AS FOLLOWS AND  
INSTALL AELS-1032-XXX AFTER FINISH AS NOTED

| HOLES<br>MARKED | QTY<br>D3391-015 | QTY<br>D3391-025 | CBORE         | P/N           |
|-----------------|------------------|------------------|---------------|---------------|
| CB1             | 12               | 12               | 0.430 X 0.170 | AELS-1032-225 |
| CB2             | 4                | 4                | 0.430 X 0.170 | AELS-1032-130 |
| CB3             | 6                | 6                | 0.430 X 0.040 | AELS-1032-130 |
| CB4             | 4                | 4                | NONE          | AELS-1032-130 |

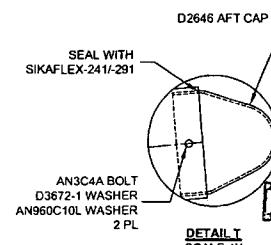
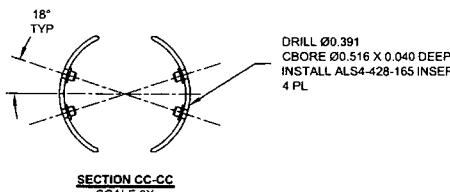
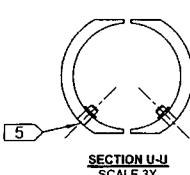


**D3391-025 BENDING AND DRILLING DETAIL**  
(SEE CBORE DETAIL BELOW)

INSTALL D3670-4200 SPACER  
SEAL WITH MAGNOBOND 6398  
GRIND FLUSH  
PRIOR TO PAINTING  
4 PL



**D3391-025 ASSEMBLY AND CBORE DETAIL**  
(SEE TABLE)



DEO ATTACHED

RELEASED  
08-09-05 M

| DESIGN     | PH       | DART AEROSPACE USA, INC |
|------------|----------|-------------------------|
| DRAWN      | AJS      | PORT HADLOCK, WA        |
| CHECKED    | A        | DRAWING NO.             |
| MFG. APPR. | A        | REV. H                  |
| APPROVED   | A        | D3391                   |
| DE APPR.   | A        | SHEET 8 OF 8            |
| DATE       | 08.08.20 | SCALE                   |
|            |          | 412 FLOAT SKIDTUBE      |
|            |          | NTS                     |

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| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

|                      |                             |        |  |                       |                         |                           |              |
|----------------------|-----------------------------|--------|--|-----------------------|-------------------------|---------------------------|--------------|
| DRAWING NO.<br>D3391 | TITLE<br>412 FLOAT SKIDTUBE | REV. H | <b>DART AEROSPACE USA, INC<br/>ENGINEERING ORDER</b> |                       | D.E.O. NO.<br>D3391-H-1 | SHEET NO.<br>SHEET 1 OF 1 | SCALE<br>NTS |
| DRAWN<br><i>CP</i>   | CHECKED<br><i>1</i>         |        | MFG. APPR.<br><i>AA</i>                              | APPROVED<br><i>MD</i> | DE APPR.<br><i>AA</i>   |                           |              |
| DATE 09.09.23        | DATE 09.09.24               |        | DATE 09/09/25  | DATE 09/09/30         | DATE 09/09/30           | DATE 09/09/30             |              |

**PURPOSE:**

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF D3391-041/043 SKIDTUBES.

**CHANGE:**

AMEND NOTE 2 OF D3391-041/043 SKIDTUBE ASSEMBLIES (ZN A6-1, A6-2) AS FOLLOWS:

2) ~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH  
AND AFTER INSTALLATION OF INSERTS.~~ COAT ALL EXPOSED FASTENERS WITH  
LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS  
OFF POWDER COATING WITH MEK DEGREASER.

**RELEASED**  
2010-02-02

*MP  
7/33*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries